


PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional): P70-US	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO at (571) 273-8300 or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on <u>September 29, 2006</u> . _____ Erin Cowles	Application Number: 09/810,871	Filed: March 16, 2001	
	First Named Inventor: Eldridge et al.		
	Art Unit: 2833	Examiner: Alexander Gilman	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. <small>See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</small></p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number: <u>39,923</u></p> <p><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34: <u>39,923</u></p> </div> <div style="width: 50%; text-align: center;">  <hr style="width: 80%; margin: 5px auto;"/> N. Kenneth Burraston Typed or printed name <hr style="width: 80%; margin: 5px auto;"/> <u>(801) 323-5934</u> Telephone number <hr style="width: 80%; margin: 5px auto;"/> <u>September 29, 2006</u> Date </div> </div> <p><small>Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</small></p>			
<input checked="" type="checkbox"/> *Total of <u>5</u> page(s) of supporting argument are submitted.			

ARGUMENTS SUPPORTING PRE-APPEAL BRIEF REQUEST FOR REVIEW

In support of Applicants' Pre-Appeal Brief Request For Review of the final rejection in the Office Action dated May 30, 2006 (hereinafter the "Office Action") in the above-identified patent application, Applicants respectfully submit the following:

I. Background:

Claims 36-58, 60-89 are pending in the application, and the current version of those claims is set forth in the Office Action dated February 8, 2006. Of the foregoing, claims 36, 58, and 84 are independent. Independent claim 36 was rejected under 35 USC 112, second paragraph. In addition, independent claims 58 and 84 were rejected under 35 USC 102 as anticipated by U.S. Patent No. 5,974,662 to Eldridge et al. ("Eldridge '662") and US Patent No. 6,215,320 to Parrish ("Parrish"). Independent claim 36 was also rejected under 35 USC 103 as obvious in view of Eldridge '662 and US Patent No. 5,703,494 to Sano ("Sano").

II. Argument:

A. Rejection based on 35 USC § 112:

The Examiner rejected claim 36 and its dependent claims as indefinite. In particular, the Examiner states that vertical movement of the contactor towards the wafer contradicts paragraph 0022 of the specification, which describes a wafer 1012 moving toward a contactor 1010. Paragraph 0022 states that "pressure contact is applied to wafer 1012 moving the latter in the z-direction toward wafer contactor 1010." Additionally, however, paragraph 0078, in conjunction with Figure 15, discloses applying pressure to a wiring substrate 1910 (which substrate 1910, according to page 7, lines 24-25, is a contactor) to cause the substrate/contacter 1910 to move towards the wafer 1906. Accordingly, the specification discloses both vertical movement of a wafer as well as vertical movement of a contactor. Applicants therefore respectfully request that the § 112 rejection be withdrawn.

B. Rejections Based on § 102:

The Examiner rejected independent claims 58 and 84 (and certain of their dependents) based on US Patent No. 5,974,662 to Eldridge et al. ("Eldridge '662") and US

Patent No. 6,215,320 to Parrish ("Parrish"). In particular, claims 58, 60-74, 76-78, and 84-89 were rejected under 35 USC § 102 as being anticipated by Eldridge '662, and claims 58, 76-78, 80, 81, and 84-89 were rejected under 35 USC § 102 as anticipated by Parrish. Applicants respectfully traverse these rejections.

Contrary to the Examiner's assertion, Eldridge '662 and Parrish do not teach the features recited in at least independent claims 58 and 84.

As pointed out on page 15 of the Amendment dated February 8, 2006, neither Eldridge '662 nor Parrish teaches the "means for attaching" as recited in claim 58. In the Office Action, the Examiner lists several elements of claim 58 that are allegedly taught by Eldridge '662 and Parrish, but the Examiner does not address the "means for attaching" element. In fact, the "means for attaching" element is not disclosed in Eldridge '662 or Parrish. Therefore, neither Eldridge '662 nor Parrish anticipates claim 58.

With respect to independent claim 84, neither Eldridge '662 nor Parrish teaches or suggests **"application of a pressure directly to"** a substrate that **"causes . . . elongate, resilient contact elements to contact corresponding ones of . . . contact points on an electronic device to be tested"** as required by claim 84. In fact, Parrish doesn't even disclose any mechanism or means for applying pressure directly to the probe card 30 (which the Examiner apparently equates with the "first substrate" of claim 84). (See also pages 15 and 16 of the previous Amendment dated February 8, 2006.) Therefore, neither Eldridge '662 nor Parrish anticipates claim 84.

For the foregoing reasons, neither Eldridge '662 nor Parrish anticipates claim 58 or claim 84. Applicants therefore respectfully request that the § 102 rejection of claim 58 and claim 84 and their dependent claims be withdrawn.

C. Rejections Based on § 103:

Claims 36, 39-57, and 75 were rejected under 35 USC § 103 as obvious in view of Eldridge '662 and US Patent No. 5,703,494 to Sano ("Sano"). Claims 37, 38, and 60 were rejected under 35 USC § 103 as obvious in view of Eldridge '662 and US Patent No. 6,184,053 to Eldridge et al. ("Eldridge '053"). Claims 49 and 50 were rejected under 35 USC § 103 as obvious in view of Eldridge '662 and US Patent No. 6,064,213 to Khandros et al. ("Khandros").

Claims 42 and 63 were rejected under 35 USC § 103 as obvious in view of Eldridge '662 and Brozowski. Applicants respectfully traverse these rejections.

Applicants find no motivation in the prior art to combine Eldridge '662 and Sano as suggested by the Examiner. The Examiner references the following statement in column 2, lines 6-10 of Eldridge '662 to back his assertion that there is motivation in the prior art to combine Sano's flexible substrate with the Eldridge '662 contactor:

"To effect reliable pressure connections between the probe elements and the semiconductor die one must be concerned with several parameters including, but not limited to: alignment, probe, force, overdrive, contact force, balanced contact force, scrub, contact resistance, and planarization."

As pointed out by Applicants on page 13 of the Amendment of February 8, 2006, this statement in Eldridge '662 does not list a flexible substrate to address one of the stated parameters, and therefore, it is difficult to see how this statement comprises the suggestion/motivation that the Examiner asserts it is. In response to the latter observation, the Examiner in the Office Action suggests that the presence of the phrase "not limited to" in the above statement somehow is equivalent to a motivation or suggestion to combine Sano's flexible substrate with the Eldridge '662 contactor. Applicants fail to see how such a general phrase can be interpreted to be a suggestion/motivation to combine such a specific mechanism--a flexible substrate--with the Eldridge '662 contactor. If all such phrases in prior art references were deemed to constitute a suggestion/motivation to combine specific claim elements, then virtually all patent applications would be deemed obvious in view of prior art! Indeed, "[t]he mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination" (MPEP 2143.01 (emphasis added); In re Mills, 916 F.2d 680 (Fed. Cir. 1990)).

Moreover, not only is there no motivation or suggestion to combine the flexible substrate of Sano with the Eldridge '662 contactor, but the prior art tends to teach away from the combination suggested by the Examiner because such a combination would result in weakened electrical connections. (For a detailed discussion, see Applicants' arguments on pages 13 and 14 of the previous Amendment of February 8, 2006.) For example, if the probe card 502 in Eldridge '662 were replaced by a flexible substrate, the spring forces in the interconnection elements (caused in part when, for example, the probe card 502 is pressed downward so that the

bond pads 526 are pressed against the probes 524) would cause the probe card 502 to flex downward and weaken the spring forces in the probes 524 and interconnection elements 516--and thereby weaken the electrical connections. In the Office Action, the Examiner responds to the latter argument by theorizing that "the elastic rigidity of the contacts should be substantially lower than the rigidity of the substrate" and that "[t]he contacts contribute to a local flexibility, while flexible substrate affect a global flexibility." Assuming *arguendo* that the Examiner believes that the suggested combination of Sano and Eldridge '662 would work because the contacts would flex more than the flexible substrate--and therefore if the substrate is pressed downward, the contacts would flex instead of the substrate so that the electrical connections would not be weakened after all then Applicants disagree. Even if the contacts would flex more than the substrate, the flexible substrate would still flex to some degree, and the flexing of the substrate would weaken the electrical connections. The combination of Sano and Eldridge '662 simply would not result in an effective or desirable device.

At any rate, Sano and Eldridge '662 together do not teach or suggest each and every element of claim 36, as is required in order to minimally establish a *prima facie* case of obviousness (MPEP 2143). In particular, the references do not teach the "application of a pressure" to a "second surface" of a flexible contactor wherein the **application of the pressure to the flexible contactor "brings about electrical connections"** as required by claim 36. The Examiner's comment on page 7 of the Office Action that section 0022 of Applicants' specification "suggests the vertical movement of the wafer" (as opposed to movement of the contactor) implies that pressure applied to the contactor is not supported by Applicants' specification. However, as already mentioned in this Paper under the section entitled "Rejection based on 35 USC § 112," Applicants' specification indeed discloses the application of pressure on a contactor. Moreover, the Examiner's suggestion, at the top of page 8 in the Office Action, that Eldridge '662 and Parish might disclose the "brings about electrical connections" element of claim 36 is irrelevant because the latter references still do not disclose the application of pressure to a flexible contactor. The Examiner has thus not shown that Sano and Eldridge '662, even if combined as suggested by the Examiner, disclose each and every element of claim 36.

In view of the foregoing arguments, independent claim 36 is not obvious in view of Eldridge '662 and Sano, nor do the other cited references make up for the deficiencies in the

combination of Eldridge '662 and Sano. The rejections of claims 36 and its dependent claims should therefore be withdrawn.

III. Conclusion:

In view of the foregoing, Applicants respectfully submit that the rejection of independent claims 36, 58, and 84 should be withdrawn and all claims allowed.